

WHAT IS CLAIMED IS:

1. A server comprising:

5 a communications module operable to receive a dual communication packet from the client over a first channel, the dual communication packet including a header having a client external IP address and a data payload having an encoded port command having a client internal IP address and a client data port number;

10 a codec operable to decode the port command;

a translation module operable to retrieve the client external IP address from the header and to generate a modified port command including the external IP address; and

15 the server operable to establish a second channel based on the modified port command.

2. The server of Claim 1, further comprising a packet filtering server firewall.

20 3. The server of Claim 2, further comprising a network address associated with the server firewall, the network address translator operable to include a static network address translation entry for each of the client and the server.

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4. The server of Claim 1, further comprising a file transfer protocol (FTP) communication module wherein the communication session between the server and the client over the second channel is conducted in secure FTP.

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5. The server of Claim 1, wherein the codec is operable to decode based on secure socket layer (SSL) encryption technology.

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6. A client, comprising:

a communications module operable to receive a communication packet from the server over a first channel, the dual communication packet including a header having a server external IP address and a data payload having an encoded port command having a server internal IP address and a server data port number;

a codec operable to decode the port command;

a translation module operable to retrieve the server external IP address from the header and to generate a modified port command including the external IP addresses; and

the server operable to establish a second channel based on the modified port command.

7. The client of Claim 6, further comprising a packet filtering client firewall.

8. The client of Claim 2, further comprising a network address translator associated with the client firewall, the network address translator operable to include a static network address translation entry for each of the client and the server.

9. The client of Claim 6, further comprising a file transfer protocol (FTP) communication module wherein the communication session between the server and the client over the second channel is conducted in secure FTP.

10. The client of Claim 6, wherein the codec is operable to decode based on secure socket layer (SSL) encryption technology.

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        decoding the encoded second peer IP address;

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using the modified port command to establish a data socket between the first and second peers.

12. A method for establishing a transient channel over a non-transient channel, comprising:

5 receiving an IP packet over the non-transient channel the IP packet including a header and a port command;

the header including a first peer IP address and the port command including an encoded second peer IP address;
decoding the encoded second peer IP address;

10 retrieving the first peer IP address from the header;

generating a modified port command including the first peer IP address in place of the second peer IP address; and

15 using the modified port command to establish the transient channel between the server and the client.

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    the header including a first peer IP address and the
port command including an encoded second peer IP address;
    decode the encoded second peer IP address;

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establish a data socket between the first peer and a second peer using the modified port command.

14. A method for establishing a data socket between a server and a client, comprising:

encoding a port command including a client internal
5 IP address and a client port number;

generating a dual channel communication packet having a header and a data payload, the header including a server external IP address, server port number, the client internal IP address and the client port number;

10 the data payload including the encoded port command;

transmitting the communication packet between the server and the client;

decoding the port command;

15 retrieving the client external IP address from the header;

modifying the decoded port command by overriding the client internal IP address within the decoded port command with the client external IP address retrieved from the header; and

20 establishing a data socket between the server and the client using the modified decoded port command.

15. The method of Claim 14, further comprising readdressing the client internal IP address within the
25 header with the client external IP address, at a client firewall.

16. The method of Claim 14, further comprising readdressing the server external IP address within the
30 header with the server internal IP address at a server firewall.

17. A method for establishing a data socket between a server and a client, comprising:

transmitting a passive command to the server;

5 encoding a port command including a server private IP address and a server port number;

creating a dual channel communication packet having a header and a data payload, the header including a client external IP address, client port number, the server internal IP address and the server port number;

10 the data payload including the encoded port command;

transmitting the communication packet to the client;

decoding the port command;

retrieving the server external IP address from the header;

15 modifying the decoded port command by overriding the server internal IP address within the decoded port command with the server external IP address retrieved from the header; and

20 establishing a data socket between the server and the client using the modified decoded port command.

18. The method of Claim 16, further comprising readdressing the server internal IP address within the header with the server external IP address at a server
25 firewall.

19. The method of Claim 16, further comprising readdressing the client external IP address in the header with the client internal IP address, at a client
30 firewall.

20. A method for transferring information over an external network, comprising:

5 establishing a control channel between a server and a client;

identifying a first end point at a first one of the server and the client, the first end point including a first portion and a second portion;

encoding the first end point in a secure format;

10 encapsulating the encoded first end point in a transmission packet including an address header having the private address of the first end point;

15 translating the private address in the address header into a public address for transmitting over the external network;

transmitting the transmission packet over the external network in a control channel;

receiving the transmission packet at the other one of the client and the server;

20 decoding the first end port; and

25 modifying the end point by replacing the first portion in the decoded end point with the public address in the address header, and establishing a data channel between the client and the server using the modified end point.

the modified dual channel command including a public IP address of a peer node copied from an IP header of a packet transmitting a dual channel command.